

ASTM A325

WEATHERING STEEL

TYPE 3

BOLTING MATERIAL FOR STRUCTURAL PURPOSE

ASTM A325 is an ASTM International standard for heavy hex structural bolts, titled Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength. It defines mechanical properties for bolts that range from ½ to 1-½ in diameter.

The equivalent metric standard is ASTM A325M, which is titled Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Minimum Tensile Strength. It defines mechanical properties for sizes M12-36.

There is also a T version, which is used to refer to fully threaded bolts. The type refers to the type of material used to make the bolt. The standard currently defines two types, however it previously defined the following three:

- Type 1: Medium carbon steel, boron steel, or medium carbon alloy steel
- Type 2: Low carbon martensitic steel (withdrawn from the standard in 1991)
- Type 3: Weathering steel

Chemical Properties

C	Mn	P	S	Si	Cr	Ni	Cu
	Max	Max	Max	Max			
0.31-0.42	0.86-1.24	0.045	0.055	0.13-0.37	0.42-0.68	0.22-0.48	0.22-0.48

Mechanical Properties

Dia	Yield strength	Tensile strength	Proof Load	Hardness
	Method	Min	Method	BHN
1/2" - 1"	635	827	586	253-319

Characteristic Standard

Materials & Manufacture	ASTM A325M Type 3
Finish (SelfColour/Black)	ASTM A325M Plain (Non-Coated)
Mechanical Properties	ASTM A325M(Equivalent to ISO898-1 Pc 8.8)
Dimensions&Tolerances	ASME B18.2.3.7M & ISO 888 thread lengths
Threads	ASME B1.13M tolerance class 6g
Workmanship	ASTM F788/F788M
Product marking	ASTM A325

A325M Mechanical Properties of Weathering Steel Bolts A325M Type3

Nominal Dia	Stress Area	Proof Load	Tensile Load min	Hardness Rockwell HRC	
				min	max
	mm2	Kn	Kn		
M24 x 3	353	212	293	25	34

Heat Treatment

Quenched & tempered

CUSTOMER ASSISTANCE : customer@TorqBolt.com